



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,997	06/29/2001	Martin Bondo Jorgensen	0459-0625P	5697
30593	7590	09/02/2009		
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER	
			LE, HUYEN D	
		ART UNIT	PAPER NUMBER	
		2614		
		MAIL DATE		DELIVERY MODE
		09/02/2009		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/893,997	<b>Applicant(s)</b> JORGENSEN ET AL.
	<b>Examiner</b> HUYEN D. LE	<b>Art Unit</b> 2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

#### Status

- 1) Responsive to communication(s) filed on 21 July 2009.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3,4,6,8-10,12,14-28 and 34-45 is/are pending in the application.  
 4a) Of the above claim(s) 14-16,18-28,30-33 and 35 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3,4,6,8-10,12,17,34 and 36-45 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) 14-16,18-28 and 35 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

I. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-4, 6, 8-10, 12, 17, 34, 36-39 and 41-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Killion (U.S. patent 6,876,749).

Regarding claims 1, 6, 8, 10, 17 and 34, Killion teaches a microphone assembly (1) including a casing (3, 35) mounted in an electronic communication device (see the abstract and col. 2, lines 26-29). As shown in figures 1 and 2A, the microphone assembly comprises one or more sound inlet ports (7, 9, 11, 13, 43, 45, 47, 49, 77, 79), one or more microphones (5, 6, 41) within the casing, and one or more electrical controlling devices (10, 12, 27, 63, 75, 81, 85; also see col. 3, lines 24-32, lines 42-67; col. 4, lines 19-59; col. 5, lines 45-58 and col. 6, lines 6-30) within the casing that can be operated by a user for selectively controlling the operation of the assembly. Killion further shows the inlet ports, the microphones and the controlling devices that are combined to form an integrated part of the microphone assembly (the Applicant should also note the definition of the term “integrated” from the Webster’s II New Riverside University Dictionary).

Killion further shows the electrical controlling device (10, 12, 75, 81, 85,) that forms part of the sound inlet port as claimed (figures 1, 3). As shown in figures 1, 2A and 3, the electrical

controlling device can be operated by the user without affecting the shape or the configuration of the inlet ports of the microphone.

Regarding claim 3, Killion teaches a direction microphone that has a sound inlet spout (11, 13, 47, 49) connected to a sound inlet port (7, 9, 43, 45, col. 3, lines 10-16 and col. 6, lines 5-14).

Regarding claim 4, Killion teaches an omni-direction microphone that has a sound inlet spout (11, 13, 47, 49) connected to a sound inlet port (7, 9, 43, 45, col. 3, lines 16-20 and col. 6, lines 14-24).

Regarding claims 9 and 12, as broadly claimed, it is inherent that the operations of the Killion hearing aid device comprises powering down or activating the device (on/off switch), or the controlling device (10, 75) is adapted to switch between an on-state and off-state of the microphone assembly (on-state or off-state of the directional or omni-directional position).

Regarding claim 36, Killion teaches a microphone assembly (1, 33) for mounting in an electronic communication device (see the abstract and col. 2, lines 26-29). As shown in figure 1, 2A and 3, the microphone assembly comprises a microphone housing (3, 35 or 41), and a sound inlet port (7, 9, 11, 13, 43, 45, 47, 49, 77, 79) for passing sound to the microphone housing, wherein the sound inlet port includes an electrical controlling device (10, 27, 63, 75, 81, 83) forming at least part of the sound inlet port, and the electrical controlling device is operable by a user for selectively controlling operation of the microphone assembly.

Regarding claim 37, Killion shows the electrical controlling device which is disposed at least partly within the sound inlet port (figure 3).

Regarding claim 38, Killion shows the electrical controlling device (10, 27, 63, 75) that includes a first part (10, 75, 76, 77, 79) being movable relative to both a second part and the microphone housing (27, 63, 35, 81, 83) as claimed.

Regarding claims 39 and 41, Killion shows the first part of the controlling device that includes channels in the front sound inlet protective screen (77) and the rear sound inlet protective screen (79) for allowing sound to pass through the sound inlet port to the microphone housing as claimed (figure 3).

Regarding claim 42, Killion shows the microphone housing that includes an outer surface and an inlet as claimed (figure 2A, 3).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 9, 12, 40 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killion et al. (U.S. patent 6,876,749).

Regarding claims 9 and 12, as interpreted in a different manner, Killion does not teach that at least one of the controlling devices is adapted to switch between an on-state and an off-state as claimed. However, the examiner takes the Office Notice that providing an on/off button for the switch in a hearing aid device is very well known in the art.

Therefore, it would have been obvious to one skilled in the art to provide an on/off button, powering the electronic device and/or activating the electronic device in the the Killion device for better adjusting and operating the device.

Regarding claim 40, Killion does not specifically teach the electrical controlling device (10, 75) that is a push button as claimed. However, it would have been obvious to one skilled in the art to provide any type of switch for the actuator switch or the controlling device (10, 75) of Killion such a push button for alternate choice and better adjusting and operating the device.

Regarding claims 45, Killion teaches a microphone assembly comprising a casing (3, 35) for mounting in an electronic communication device (see the abstract and col. 2, lines 26-29). As shown in figures 1 and 2A, the microphone assembly has a sound inlet port (7, 9, 11, 13, 43, 45, 47, 49, 77, 79), and an electrical controlling device (10, 27, 63, 75) that can be operated by a user for selectively controlling the operation of the assembly, wherein the sound inlet port the electrical controlling device are combined to form an integrated microphone assembly (the Applicant should also note the definition of the term “integrated” from the Webster’s II New Riverside University Dictionary).

Killion does not specifically teach the electrical controlling device (10, 75) that includes a user operable actuator having a generally rounded outer configuration as claimed. However, it would have been obvious to one skilled in the art to provide any type of switch for the electrical controlling device (10, 75) of Killion such as a switch having a generally rounded outer configuration for alternate choice and better adjusting and operating the device.

5. Claims 1, 3, 4, 6, 8-10, 12, 17, 34 and 36-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darbut et al. (U.S. patent 6,597,793) in view of Killion et al. (U.S. patent 6,876,749).

Regarding claims 1, 8, 10, 17, 34, 43 and 45, Darbut teaches a microphone assembly (10) comprising a casing (12, 15, figure 3) for mounting in an electronic communication device (col. 1, lines 7-10). As shown in figures 1-3, the microphone assembly comprises one or more sound inlet ports (18, 19, 20, 21, 30, 32, 54, 56, 58), one or more microphones (26) within the casing, and one or more controlling devices (15, 50, 52, 54, 56, 58) within the casing that can be operated by a user for selectively controlling the operation of the assembly. The inlet ports (18, 19, 20, 21, 30, 32, 54, 56, 58), the microphone (26) and the controlling device (15) are combined to form an integrated part of the microphone assembly (see figure 3, the Applicant should also note the definition of the term “integrated” from the Webster’s II New Riverside University Dictionary). Darbut further shows the controlling device (15) that forms part of the inlet ports (figures 1, 3, 4) and can be operated by the user without affecting the configuration of the sound inlet ports (18, 19, 20, 21, figures 1 and 3).

Art Unit: 2614

As shown in figures 1, 3 and 4, the controlling device includes channels (54, 56, 58) for allowing sound to pass through sound inlet port to the microphone housing, and the controlling device (15) includes an actuator having a generally rounded outer configuration.

Darbut does not specifically teach that the controlling device or the switching mechanism (15) is an electrical device. However, providing a controlling device or a switching mechanism being an electrical device is very well-known in the art.

Killion teaches a controlling device or a switching mechanism which is an electrical device for a microphone assembly (10, 12, 27, 63, 75, 81, 85; also see col. 3, lines 24-32, lines 42-67; col. 4, lines 19-59; col. 5, lines 45-58 and col. 6, lines 6-30).

Therefore, it would have been obvious to one skilled in the art to provide the controlling device or the switching mechanism (15) of Darbut being an electrical device, as taught by Killion et al. for better sensing the position of the actuator switch and selecting a microphone output base on the position sensed to obtain a desired frequency.

Regarding claim 3, Darbut teaches the microphone that comprises a directional microphone having a sound inlet spout connected to sound inlet port as claimed (figure 3, col. 4, lines 25-40).

Regarding claim 4, Darbut teaches the microphone that comprises an omni-directional microphone having a sound inlet spout connected to sound inlet port as claimed (figure 3, col. 4, lines 25-40).

Regarding claim 6, as broadly claimed, each sound inlet port (15, 18, 19, 20, 21, 30, 32, 54, 56, 58) comprises controlling devices (14, 15, 16, 60, 62, 64).

Regarding claim 9, as broadly claimed, it is inherent that the operations of the Darbut hearing aid comprises powering down or activate the device (on/off switch). As interpreted in a different manner, Darbut does not specifically teach the operations of the Darbut hearing aid device that comprises powering the device down and/or activating the device. However, the examiner takes the Office Notice that providing an on/off for the switch in a hearing aid device is well-known in the art.

Therefore, it would have been obvious to one skilled in the art to provide an on/off switch in the hearing aid of Darbut for powering or activating the device.

Regarding claim 12, as broadly claimed, the controlling device (15) is adapted to switch between an on-state and off-state of the directional or omni-directional microphone (col. 4, lines 28-40).

Regarding claim 36, Darbut teaches a microphone assembly (figures 1, 2) for mounting in an electronic communication device (col. 1, lines 7-10). The microphone assembly (figures 1, 2) comprises a microphone housing (26 or 12), and a sound inlet port (15, 18, 19, 20, 21, 30, 32, 54, 56, 58) for passing sound to the microphone housing (26 or 12). As shown in figures 1, 3 and 4, the sound inlet port includes a controlling device (15, 54, 56, 58, 60) forming at least part of the sound inlet port, and the controlling device (15) is operable by a user for selectively controlling operation of the microphone assembly.

Regarding claim 37, as broadly claimed, the controlling device (54, 56, 58, 60) is disposed at least partly within the sound inlet port (15 in figure 4 or 18, 19, 20 and 21 in figures 1, 3).

Regarding claim 38, Darbut shows the controlling device that includes a first part (15) and a second part (12) as claimed.

Regarding claims 39 and 41, Darbut shows the first part of the controlling device that includes channels (54, 56, 58) as claimed.

Regarding claim 40, Darbut in view of Killion does not specifically teach the controlling device (15) that is a push button as claimed. However, it would have been obvious to one skilled in the art to provide any type of switch for the switching mechanism (15) of Darbut such a push button for alternate choice and better adjusting and operating the device.

Regarding claim 42, Darbut teaches the microphone housing (12, figure 2) that includes an outer surface (22) and an inlet (18, 19, 20, 21) formed in the outer surface. As shown in figures 1 and 3, the sound inlet port (54, 56, 58) is disposed adjacent the outer surface of the microphone housing generally over the inlet for passing sound to the microphone housing as claimed.

Regarding claim 44, and the controlling device (15) includes a user operable actuator having a generally rounded outer configuration as claimed.

#### ***Response to Arguments***

6. Applicant's arguments filed 06/22/09 have been fully considered but they are not persuasive.

Responding to the arguments about the actuator switch of Killion, the examiner has explained in detail in the Office Action. The Applicant should note the operations and the electrical connections of the switch of Killion (10, 12, 27, 63, 75, 81, 85, figures 1, 2A, 3, see

Art Unit: 2614

col. 3, lines 24-32, lines 42-67; col. 4, lines 19-59; col. 5, lines 45-58 and col. 6, lines 6-30). The switch of Killion (10, 12, 27, 63, 75, 81, 85) is an electrical controlling device that can be operated by a user for selectively controlling the operation of the assembly as claimed. Further, as broadly claimed, Killion shows the electrical controlling device that can be operated by a user without affecting the shape or the configuration of the inlet ports as claimed (figures 1 and 3).

Responding to the arguments about the mechanical switching mechanism in Darbut, the Applicant should note that Darbut does not specifically teach the controlling device or the switching mechanism (15) being an electrical device. However, providing a controlling device or a switching mechanism being an electrical device is well-known in the art.

Killion teaches a controlling device or a switching mechanism which is an electrical device for a microphone assembly (10, 12, 27, 63, 75, 81, 85; also see col. 3, lines 24-32, lines 42-67; col. 4, lines 19-59; col. 5, lines 45-58 and col. 6, lines 6-30).

Therefore, it would have been obvious to one skilled in the art to provide the controlling device or the switching mechanism (15) of Darbut being an electrical device, as taught by Killion et al. for better sensing the position of the actuator switch and selecting a microphone output base on the position sensed to obtain a desired frequency.

The examiner has explained in detail about rejections over Killion and Darbut in the Office Action. However, the Applicant can contact to examiner at the time and the telephone number listed below for a personal interview to discuss the Office Action and the differences between the cited prior art and the subject matter cited in the claims as requested.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (571) 272-7502. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/HUYEN D. LE/  
Primary Examiner, Art Unit 2614

HL  
August 29, 2009